



Opportunities (and Threats) for online access to Europe's cultural diversity **A Technical Perspective** European Parliament, Brussels

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Overview



- Digitisation and Access: Facts & Figures, Recommendations
- Linked Open Data vs. Google (?): how do they relate to each other



Digitisation & Access



Cultural Heritage – How Digital Is It?



europeana
think culture



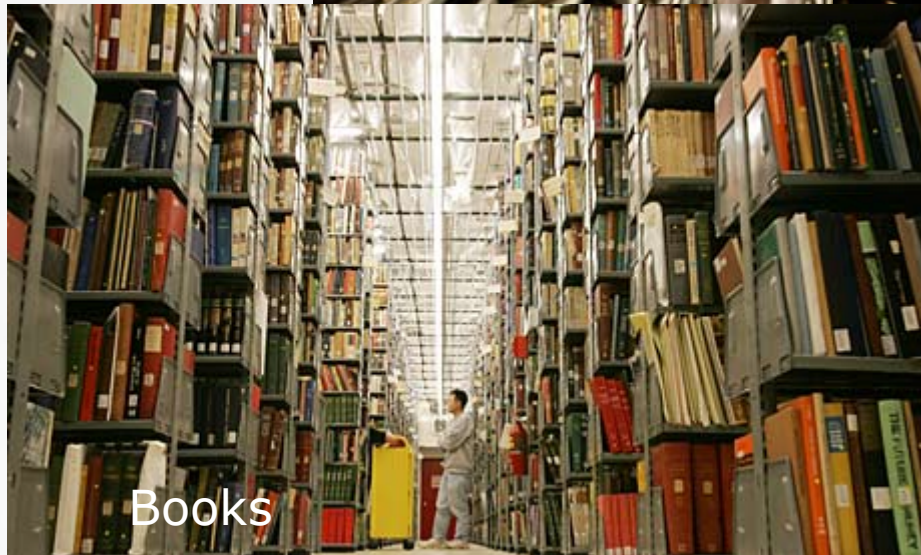
Access to Europeana Figures are correct as of 01 October 2012

Country	Total	Percentage
Total of all records	22,010,974	
Germany	3,491,055	15.86%
France	2,521,266	11.45%
Sweden	2,228,281	10.12%
Netherlands	2,115,892	9.61%
Spain	2,011,511	9.14%
Norway	1,557,458	7.08%
United Kingdom	1,312,657	5.96%
Italy	1,210,217	5.50%
Ireland	953,455	4.33%
Europe	883,178	4.01%
Poland	834,679	3.79%
Finland	697,031	3.17%
Austria	467,872	2.13%
Belgium	323,162	1.47%
Slovenia	249,472	1.13%

Cultural Heritage – How Digital Is It?



Film



Books



Newspapers



Access to Europe's Cultural Diversity

Cultural Heritage – How Digital Is It?



Cultural Heritage – How Digital Is It?



From 22 to 220 Million!



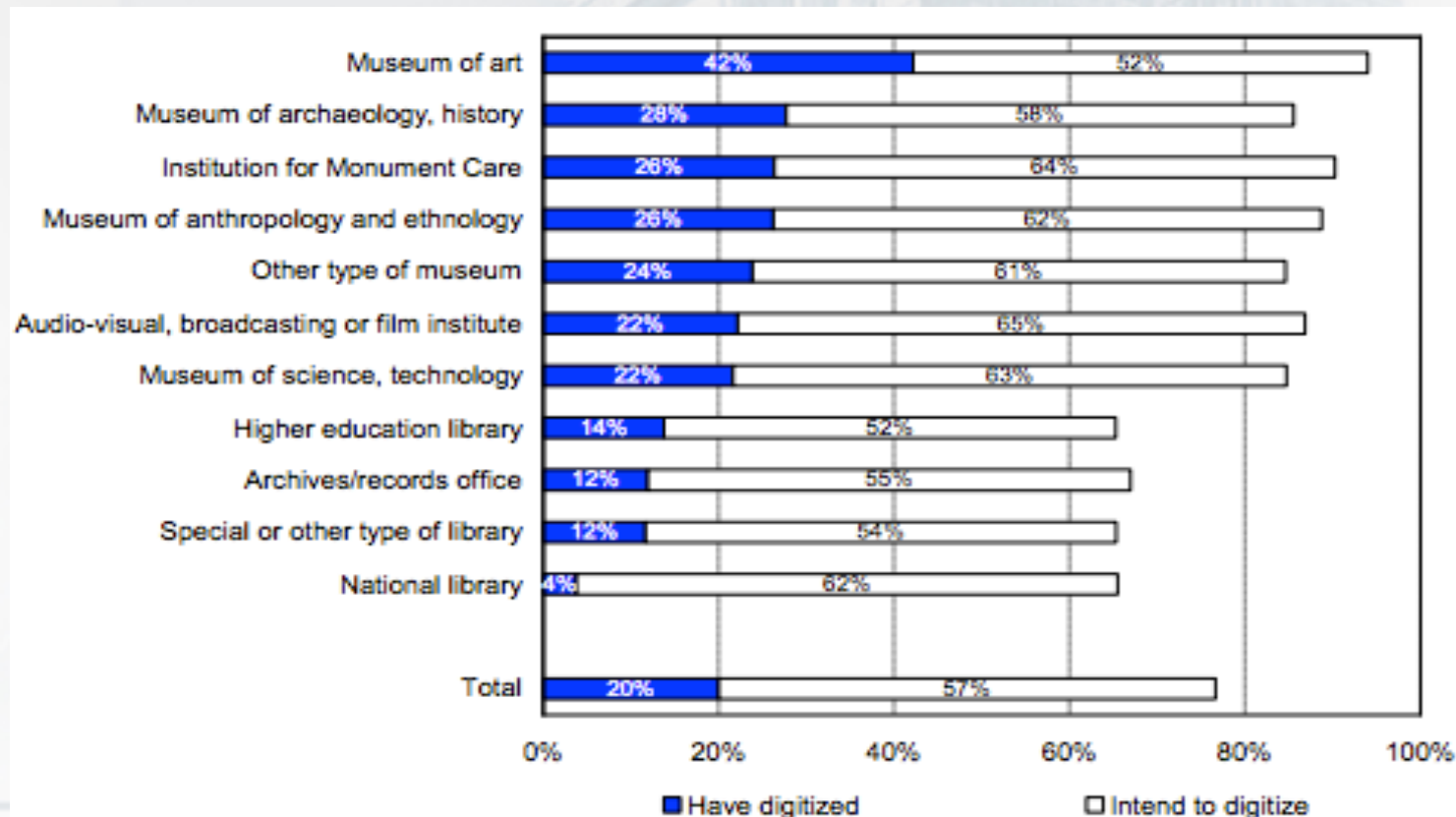
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Facts & Figures



- <http://enumerate.eu/>
- Survey Report on Digitisation in European Cultural Heritage Institutions 2012 (May 2012)



The Downside ...



- Of the available digitised holdings (140 million objects) only 15% are available to Europeana
- ... and what about quality?
 - Digitisation quality?
 - Metadata quality??
- ... as a requirement for effective reuse!



Recommendation



- Push investments in digitisation and digitisation quality!
- Push stakeholders to make digitised holdings available to Europeana!
- Establish open standards for digitisation quality!



Linked Open Data vs. (?) Google



The Second Generation Web



Linked Data essentials

1. Use URIs Standard **Identifiers**
2. Use HTTP URIs Standard **Pointers**
3. Serve useful information using SPARQL, RDF standards
4. Mention URIs of related objects Standards for **Queries** and **Statements**

Link to Context

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[http://www.w3.org/2008/Talks/0617-lod-tbl/#\(4\)](http://www.w3.org/2008/Talks/0617-lod-tbl/#(4))



Access to Europe's Cultural Diversity

Linked Data - Further Explained



Publishing and Using Cultural Heritage on the Semantic Web. Eero Hyvönen. Synthesis Lectures on the Semantic Web: Theory and Technology, No. 1, Pages 1-159

(doi: 10.2200/S00452ED1V01Y20001)

Tom Heath
Christian Bizer

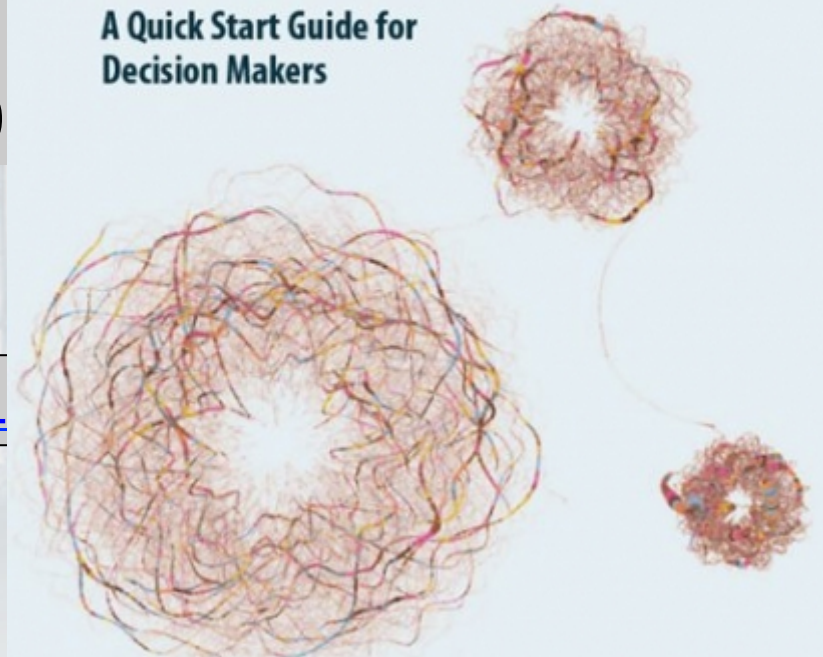
<http://linkeddatabook.com/editions/1>

SYNTHESIS LECTURES ON
THE SEMANTIC WEB: THEORY AND TECHNOLOGY
Jürgen Handberg, Series Editor

Florian Bauer, Martin Kaltenböck

Linked Open Data: The Essentials

A Quick Start Guide for
Decision Makers

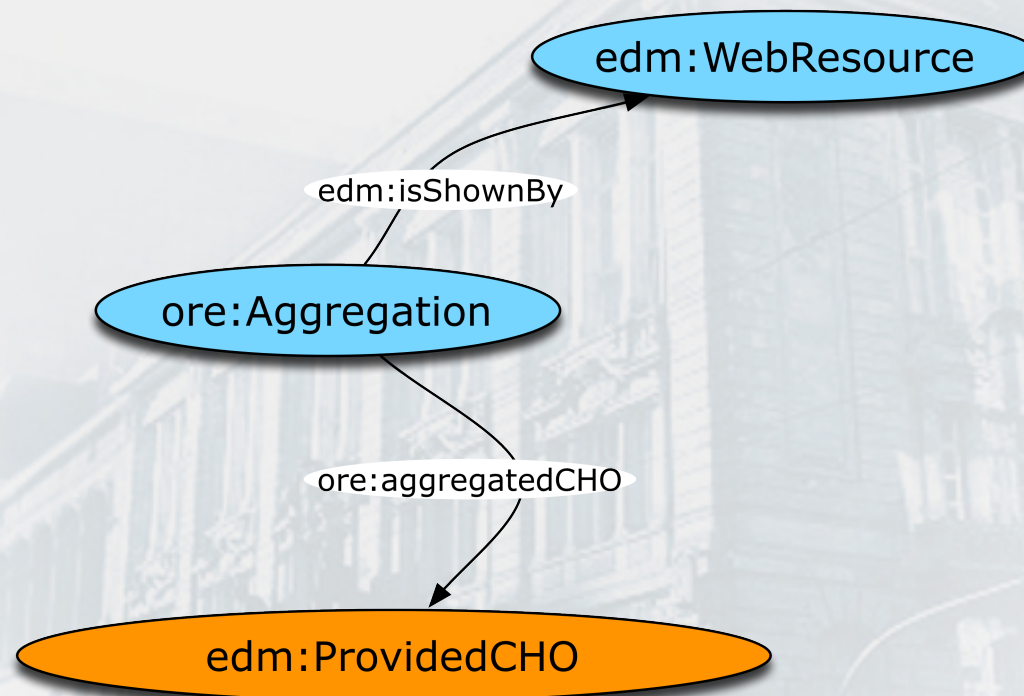


<http://www.semantic-web.at/LOD-TheEssentials.pdf>

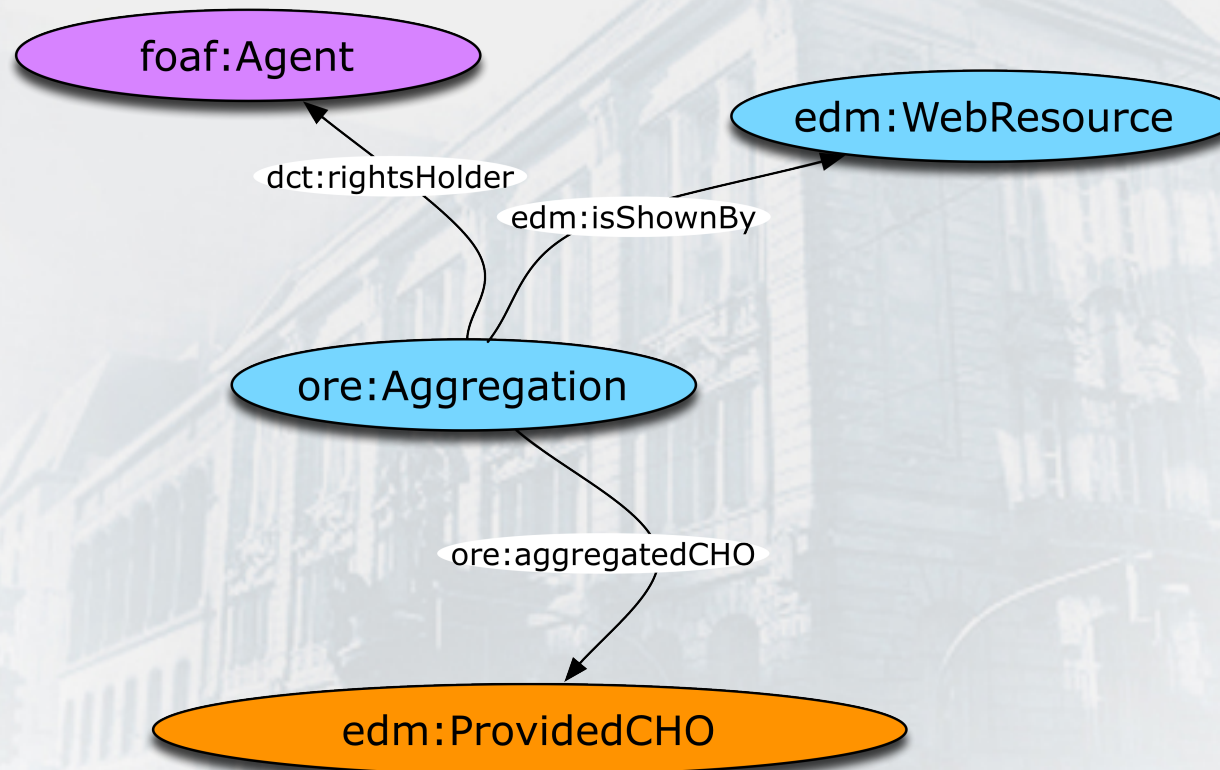


Access to Europe's Cultural Heritage

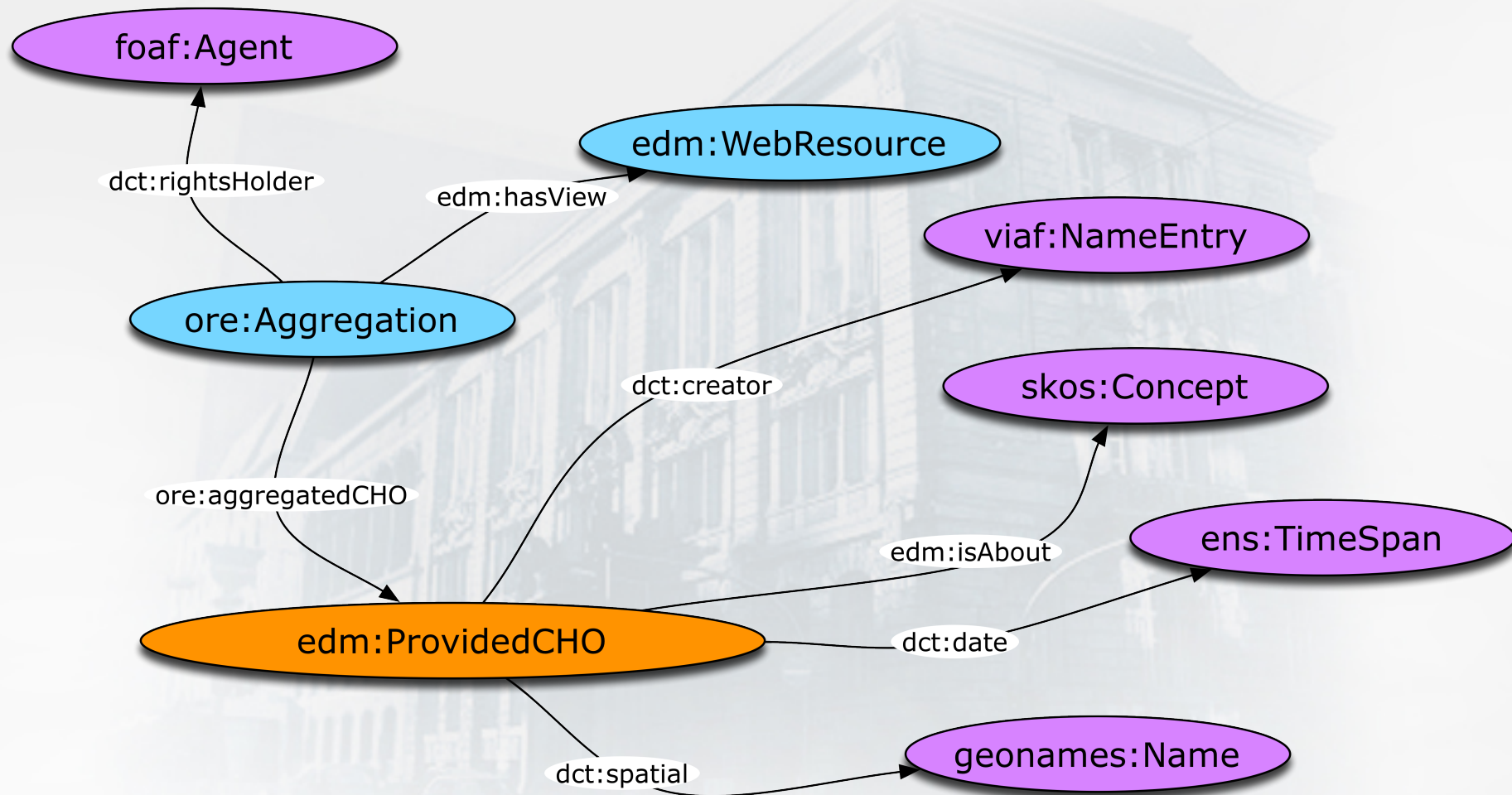
An Aggregation ...



... some context



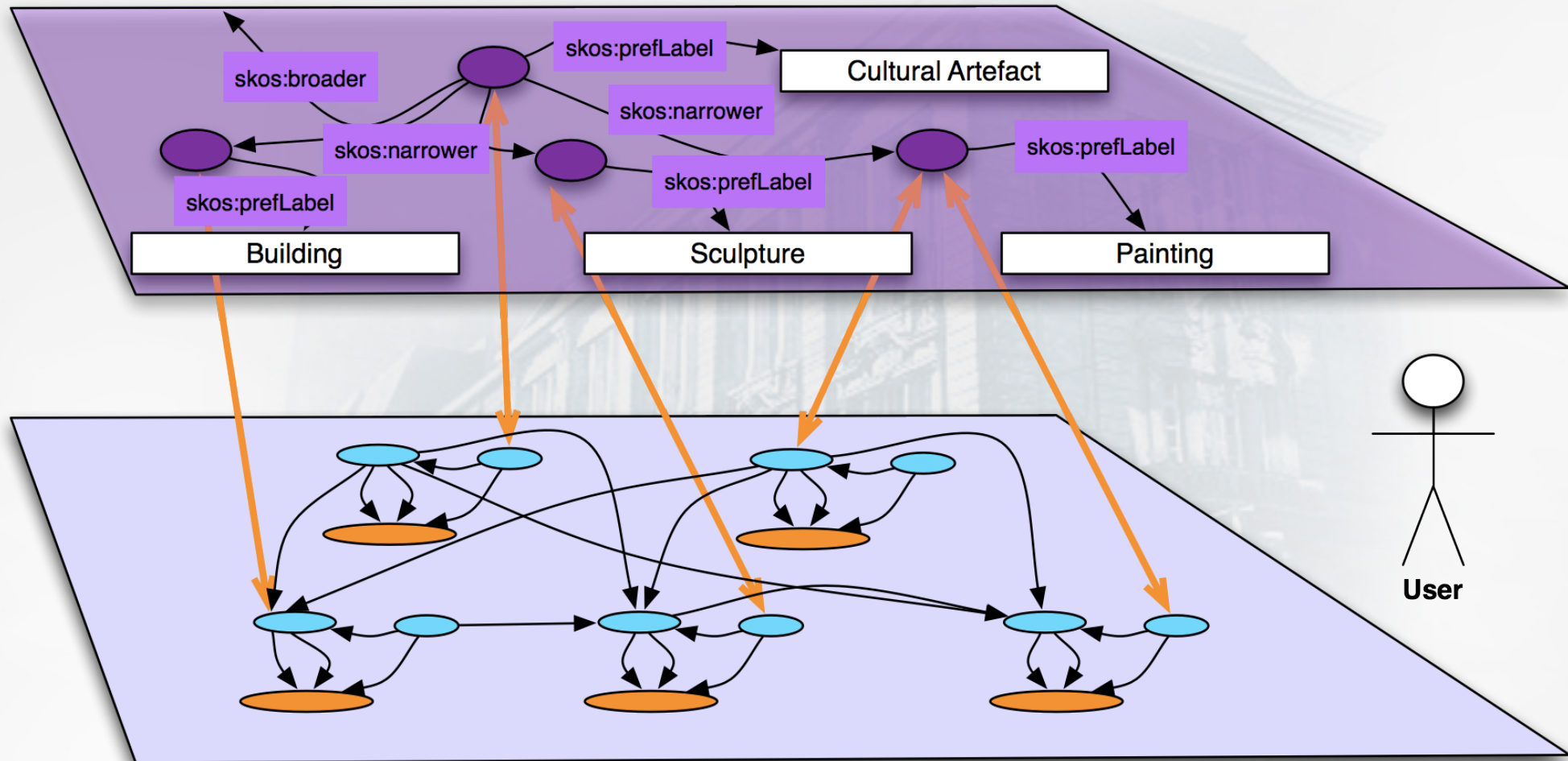
... more context



... and the Big Picture: The Semantic Data Layer



Semantic Network

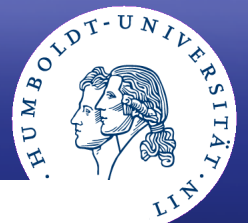


Networked Object Representations



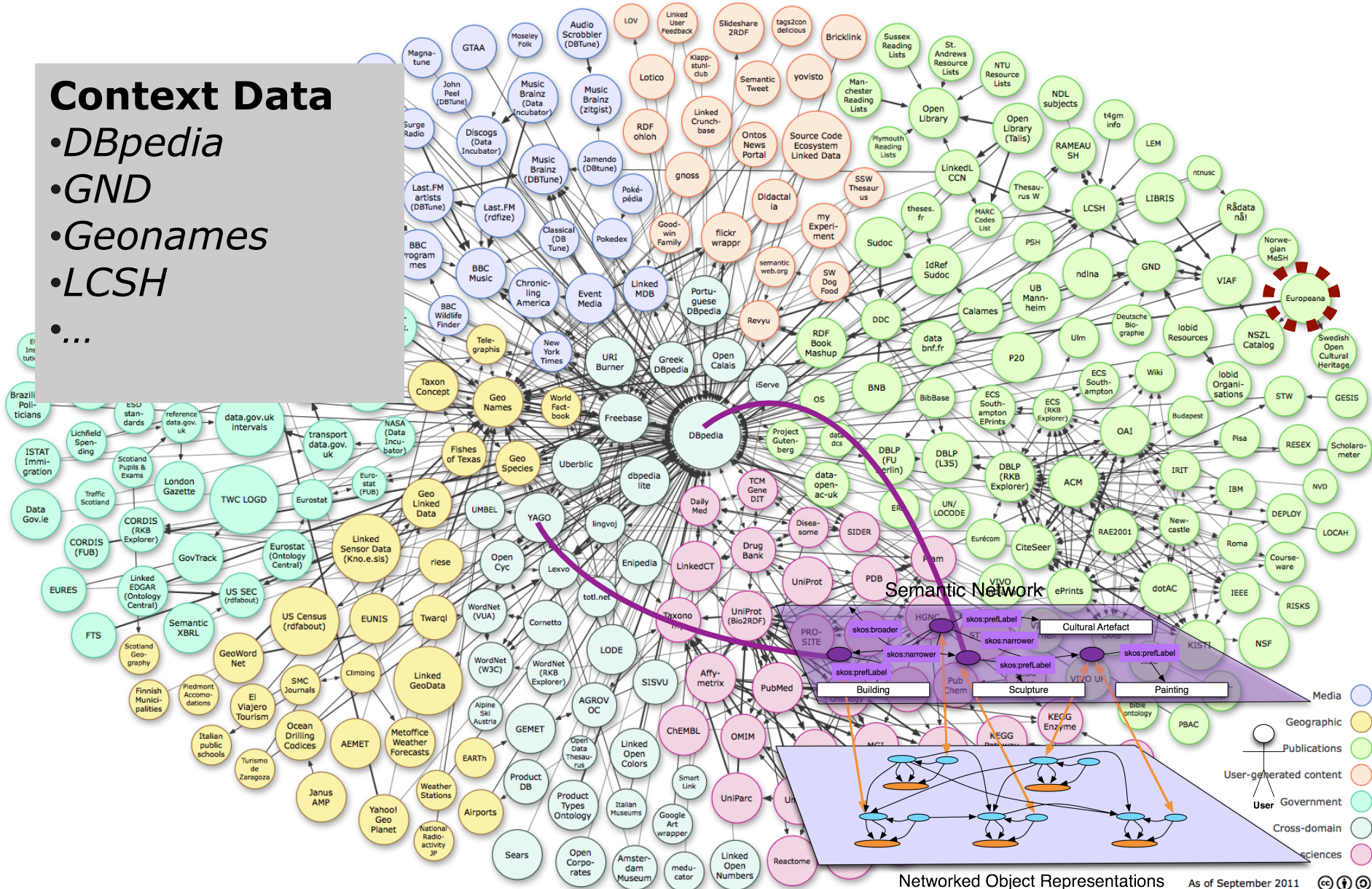
Access to Europe's Cultural Diversity

EDM and Linked Open Data



Context Data

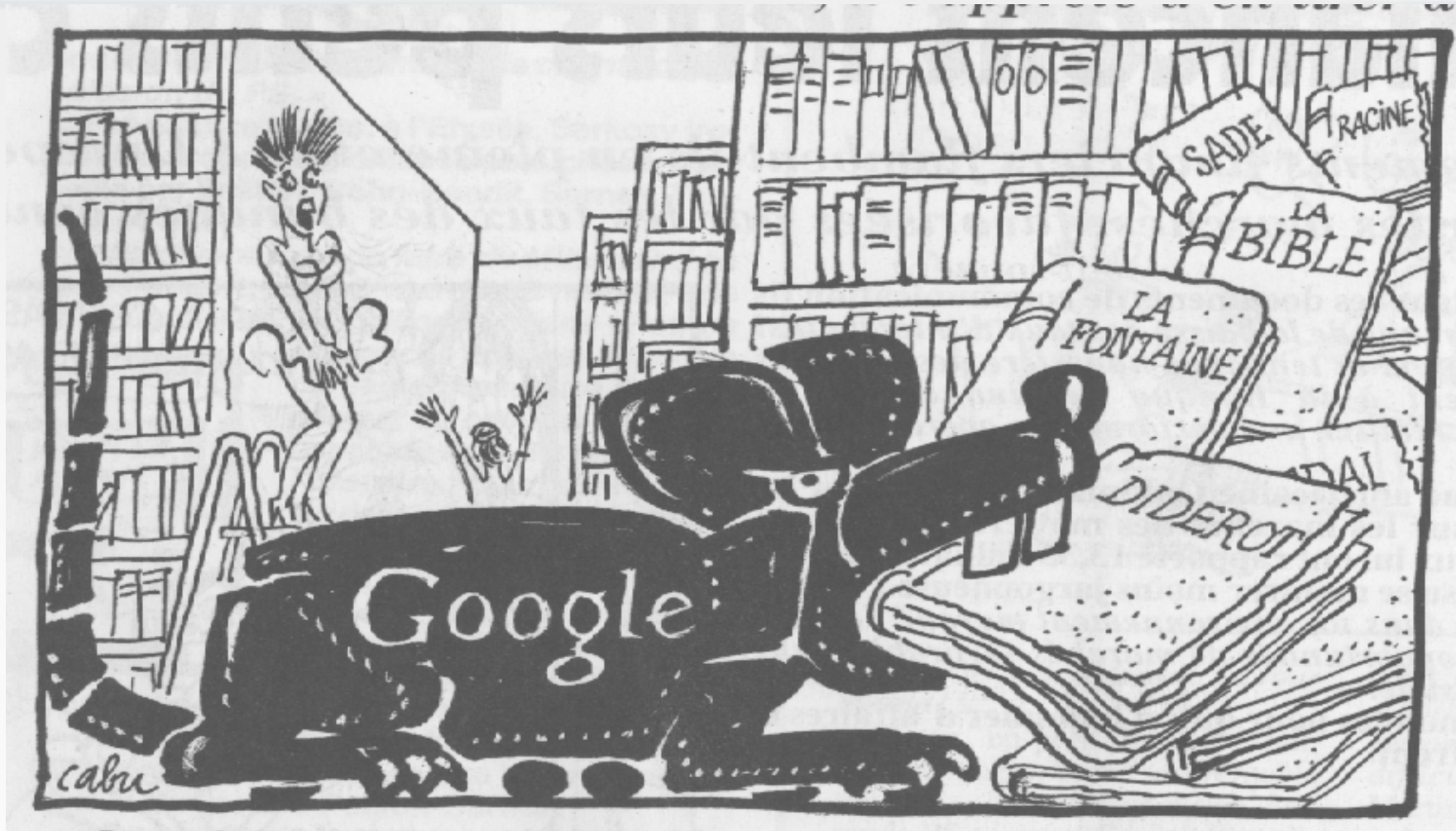
- DBpedia
- GND
- Geonames
- LCSH
- ...



Access to Europe's Cultural Diversity



Europeana and Google



Google Books in 2005 as seen by the Canard Enchaîné ...



Access to Europe's Cultural Diversity

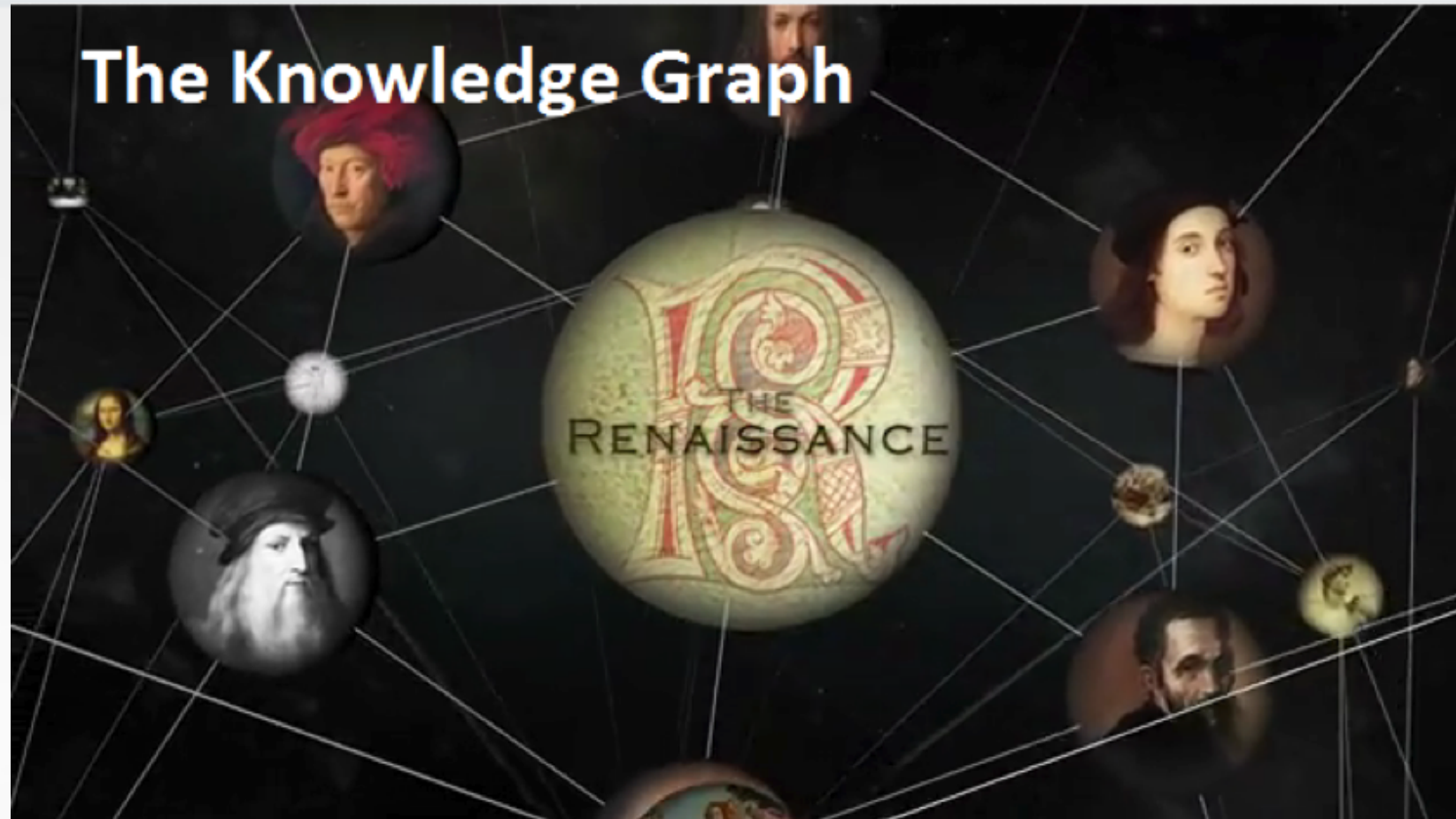
Europeana 2005 - 2012



- ... and by Jean-Noël Jeanneney
- → Joint declaration of six European Governments ... Chirac and Schröder among those!
- Declaration by Commissioner Reding on the “European Digital Library” flagship as part of i2010.
- Launch (and crash) of a first prototype 20.11.2008
- Constant growth and stable operations since then, > 22 M objects represented to date

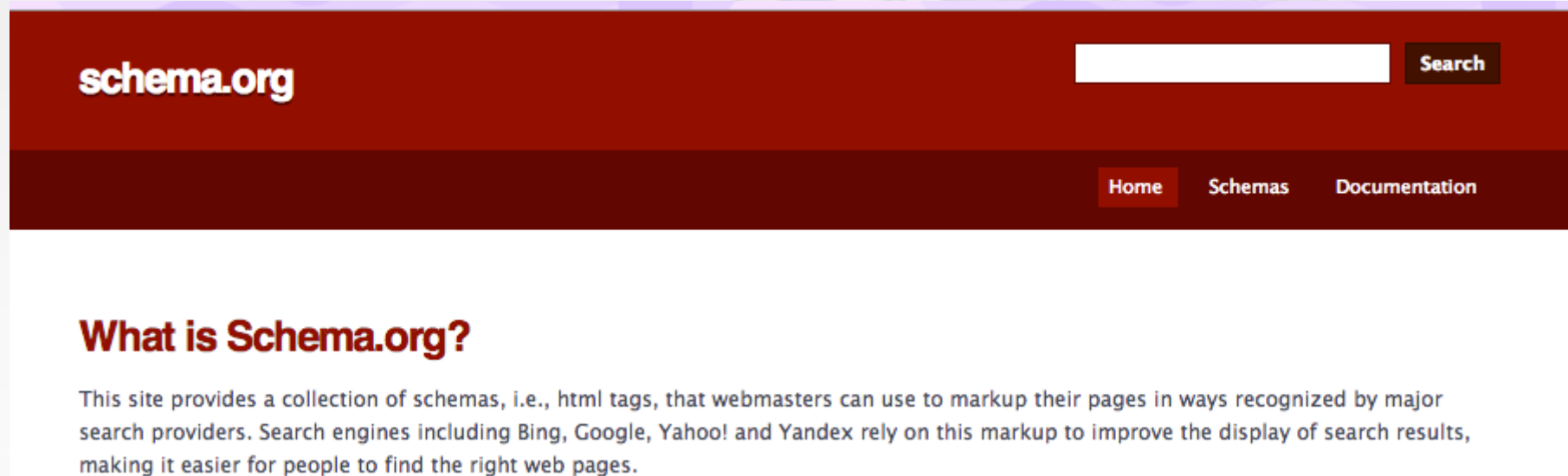


Google Going Semantic



Is this Yet Another Linked Data Application?

Google Going Semantic (2)



Is this Yet Another Linked Data Vocabulary?



Issues



- LoD and Knowledge Graph: Friends or Competitors?
- LoD and Schema.org: Complements or Competitors?
- Europeana and Google: Cooperation? And if so, to what degree, under which conditions??



Recommendation



- Provide a strong political statement regarding these issues
- Establish a European expert group to prepare such a statement (together with the Commission)



A large, faded background image of a classical building with many windows and a pediment, likely a university building.

Thank you!

